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FAX TRANSMITTAL

DATE: November 30, 2004

TO: Examiner Lori A. Clow

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FROM: Gregory L. Maurer 

RE: QUANTIFYING GENE RELATEDNESS VIA NONLINEAR
PREDICTION OF GENE EXPRESSION LEVELS

OUR FILE: 4239-54279-01

YOUR FILE: Patent Application No. 09/595,580

NO. PAGES 2 (including this cover page)

PLEASE ACKNOWLEDGE RECEIPT BY RETURN FACSIMILE? ☐ Yes ☒ No

CONFIRMATION TO FOLLOW? ☐ Yes ☒ No

CONTACT INFO: If you do not receive all pages or if you have problems receiving transmittal, please call us at (503) 226-7391 as soon as possible and ask for Amanda E. Holland.

MESSAGE: For the telephonic interview scheduled for Thursday, December 2 at 1 PM your time: Attached is claim "A" that we have put together after reviewing the specification again.

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A) A computer-implemented method comprising:

constructing a first multivariate nonlinear model for predicting a gene expression level for a first gene selected out of a first plurality of genes based on observed gene expression levels for the first plurality of genes;

(measuring effectiveness of the first multivariate nonlinear model in predicting the observed gene expression level of the first gene selected out of the first plurality of genes;

constructing a second multivariate nonlinear model for predicting a gene expression level for a second gene selected out of a second plurality of genes based on observed gene expression levels for the second plurality of genes;

measuring effectiveness of the second multivariate nonlinear model in predicting the observed gene expression level of the second gene selected out of the second plurality of genes;

comparing the first and second multivariate nonlinear models by ranking the effectiveness of the first multivariate nonlinear model relative to the effectiveness of the second multivariate nonlinear model; and

presenting results of the comparing, wherein the effectiveness of the first and second multivariate nonlinear models are presented as a relative relatedness for the first and second plurality of genes, and wherein a higher-ranking multivariate nonlinear model having a higher effectiveness of the two models indicates a higher relatedness between the plurality of genes used to construct the higher-ranking multivariate nonlinear model relative to the relatedness between the plurality of genes used to construct a lower-ranking multivariate nonlinear model having a lower effectiveness.